

AMENDMENTS TO THE CLAIMS

I. Listing of Claims

1. (Currently Amended) An apparatus for transporting plate-shaped work pieces, comprising:

a frame; and

an air-supplying[[-type]] support means, which is supported on the frame and which supplies filtered air toward a lower surface of a plate-shaped work piece being transported so as to contactlessly support the plate-shaped work piece, wherein the air-supplying[[-type]] support means ~~is provided with~~ has a dust-removal filter for removing dust, a porous member located close to and above the dust-removal filter, and an air-supplying means having an electric fan for supplying filtered air toward the lower surface of the plate-shaped work piece through the dust-removal filter.

2. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 1, further comprising:

a drive force application means for applying a drive force in a transporting direction to the plate-shaped work piece;

wherein the drive force application means is provided with a drive rotor that contacts both end portions in a width direction, which is perpendicular to the transporting direction, of the plate-shaped work piece and applies a drive force thereto; and

wherein the air-supplying[[-type]] support means supports a portion located between the end portions of the plate-shaped work piece.

3. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 1, wherein the dust-removal filter and the air-supplying means are incorporated into a single unit, forming an air-supplying unit, and the air-supplying[[-type]] support means is formed by lining up a plurality of such air-supplying units in the transporting direction of the plate-shaped work piece.

4. (Canceled)

5. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 1, further comprising:

a transport casing covering a transport space in which the air-supplying[[-type]] support means and a transporting route for the plate-shaped work piece are accommodated;

wherein the air-supplying means sucks in air within the transport casing and supplies the sucked-in air through the dust-removal filter and toward the lower surface of the plate-shaped work piece as filtered air, circulating the air within the transport space.

6. – 9. (Canceled)

10. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 1, ~~comprising: wherein the frame, the dust-removal filter and the air-supplying means having an electric fan constitutes at least a part of an upper level transport portion, and wherein a further frame, a further dust-removal filter and further air-supplying means having an electric fan constitutes at least a part of a lower level transport system,~~

~~upper level and lower level transporting portions for transporting the plate-shaped work piece;~~

~~wherein of the two upper and lower level transporting portions, the upper transporting portion can be rotated is capable of swinging upward about one end portion so as to open expose~~ an upper area of the lower transporting portion.

11. – 13. (Canceled)

14. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 1, wherein a first circulation path that allows air to flow downward is formed to the side of the air-supplying[[-type]] support means.

15. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 1, wherein a second circulation path for discharging downward the filtered air that has been supplied to the lower surface of the plate-shaped work piece is

formed in the air-supplying[[-type]] support means at an intermediate location in the width direction, which is perpendicular to the transporting direction, of the plate-shaped work piece.

16. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 15, wherein the air-supplying[[-type]] support member has air-supplying units in which the dust-removal filter and the air-supplying means are incorporated into a single unit, and which are lined up in the transporting direction and the width direction; and

wherein the second circulation path is formed by separating the air-supplying units lined up in the width direction.

17. (Original) The apparatus for transporting plate-shaped work pieces according to claim 15, comprising:

a discharged air amount adjustment means for adjusting the amount of air discharged over the second circulation path.

18. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 17, ~~wherein the air-supplying-type support means is provided with a porous member, which is located at an upper portion thereof and which is for rectifying the filtered air that is supplied onto the lower surface of the plate-shaped work piece; and~~ wherein the porous-member is ~~provided with~~ has a ventilation portion that permits ventilation into the second circulation path.

19. (Original) The apparatus for transporting plate-shaped work pieces according to claim 18, wherein the porous member is partitioned in the width direction and formed by a plurality of plate-shaped portions, and the ventilation portion is formed by positioning the plurality of plate-shaped portions leaving a spacing between them in the width direction; and

wherein the discharged air amount adjustment means adjusts the spacing between the plate-shaped portions of the porous member, adjusting the amount of air discharged through the second circulation path.

20. (Canceled)

21. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 16, wherein the air-supplying[[-type]] support means is formed by the air-supplying units lined up in the transporting direction, and a third circulation path that discharges the filtered air supplied onto the lower surface of the plate-shaped work piece downward is formed by separating the air-supplying units lined up in the transporting direction.

22. (Original) The apparatus for transporting plate-shaped work pieces according to claim 15, further comprising:

a drive force application means for applying a drive force in the transporting direction to the plate-shaped work piece;

wherein the drive force application means is provided with a drive rotor for supporting an end side of the plate-shaped work piece in a contacting manner, a driven rotor for supporting the other end side of the plate-shaped work piece in a contacting manner, a drive mechanism for driving the drive rotor, and a transmission mechanism for transmitting the motive force of the drive mechanism to the driven rotor;

wherein the drive force application means is configured such that it applies a drive force while supporting both end portions of the plate-shaped work piece in a contacting manner with the drive rotor and the driven rotor; and

wherein the transmission mechanism is disposed in the second circulation path.

23. (Original) A apparatus for transporting plate-shaped work pieces comprising:

a frame;

a motor supported on the frame;

a fan, which is driven by the motor and which sends air upward;

a dust-removal filter disposed above the fan;

a plate-shaped porous member, which is disposed above the dust-removal filter and which has a plurality of apertures that allow air from the fan to pass upward; and

a circulation aperture formed in the porous member that allows the air to pass downward.

24. (Currently Amended) The apparatus for transporting plate-shaped work pieces according to claim 23, wherein the fan and the dust-removal filter are supported ~~with~~ in within a housing adapted to be supported on the frame and are thus incorporated into an air-supplying unit.

25. (Original) The apparatus for transporting plate-shaped work pieces according to claim 24, wherein a plurality of air-supplying units are disposed in a direction perpendicular to the transporting direction of the plate-shaped work piece, and a spacing between two adjacent air-supplying units allows air in the downward direction that has passed through the circulation aperture to pass through.

26. (New) An apparatus for transporting plate-shaped work pieces, comprising:

a frame;

an air-supplying support means, which is supported on the frame and which supplies filtered air toward a lower surface of a plate-shaped work piece being transported so as to contactlessly support the plate-shaped work piece, wherein the air-supplying support means has a dust-removal filter for removing dust, and an air-supplying means having an electric fan for supplying filtered air toward the lower surface of the plate-shaped work piece through the dust-removal filter; and

a housing supported by the frame and accommodating the dust-removal filter and the electric fan to integrate the dust-removal filter and the electric fan into a single air-supplying unit.

27. (New) The apparatus for transporting plate-shaped work pieces according to claim 26, further comprising:

a drive force application means for applying a drive force in a transporting direction to the plate-shaped work piece;

wherein the drive force application means is provided with a drive rotor that contacts both end portions in a width direction, which is perpendicular to the transporting direction, of the plate-shaped work piece and applies a drive force thereto; and

wherein the air-supplying support means supports a portion located between the end portions of the plate-shaped work piece.

28. (New) The apparatus for transporting plate-shaped work pieces according to claim 26, wherein the air-supplying support means has a plurality of air-supplying units positioned in a transporting direction of the plate-shaped work pieces.